Naval Expeditionary Forces

America's Asymmetric Advantage

In the wake of the tragic terrorist attacks of September 11, 2001, with Americans haunted by a heightened sense of vulnerability, some may lose sight of the extensive resources the United States has at its disposal to provide security for its homeland and to influence events far from its shores. Preeminent among these resources is the power-projection capability of its forward-deployed naval expeditionary forces. Given that threats to our nation's security and interests can arise suddenly and from any corner of the globe, maintaining and extending this advantage is of paramount importance.

While our naval expeditionary capabilities are unparalleled today, the Navy and Marine Corps must continue to evolve to meet the emerging demands of future combat operations. Even before the September 11 attacks and the publication of the 2001 *Quadrennial Defense Review Report*, all U.S. Armed Forces, including the naval services, had embraced the need to transform themselves for the 21st century, post-Cold War world. Guided by the goals and operational concepts outlined in *Joint Vision 2020*, as well as real-world experience across the spectrum of contingencies during the last decade, the naval services have focused considerable thought and investment on modernizing America's naval expeditionary forces.

Key among the QDR's operational goals for creating the U.S. military of the 21st century is "projecting and sustaining U.S. forces in distant anti-access or area denial environments and defeating anti-access and area-denial threats."[1] Moreover, the report explains that:

> *The defense strategy rests on the assumption that U.S. forces have the ability to project power worldwide. The United States must retain the capability to send well-armed and logistically supported forces to critical points around the globe, even in the face of enemy opposition, or to locations where the support infrastructure is lacking or has collapsed. For U.S. forces to gain the advantage in such situations, they must have the ability to arrive quickly at non-traditional points of debarkation, to mass fire against an alerted enemy, and to mask their own movements to deceive the enemy and bypass its defenses.*[2]

Not only does this underscore the need for superior expeditionary capabilities, but it also recognizes that to accomplish their national security mission, current and future naval expeditionary forces must be able to execute three broad tasks:

- Control the sea and expeditiously move combat power to a chosen objective area
- Deliver combat power to achieve tactical and operational objectives against opposition
- Sustain the combat power for as long as necessary, re-embarking and reconstituting the naval expeditionary force once the mission has been accomplished

To be successful U.S. naval forces must be able to limit an adversary's options, interdict his movements, and control the sea and air within his littorals. Today, the Navy and the Marine Corps can readily accomplish these tasks; we must be able to do it even more effectively and affordably tomorrow if we are to preserve this significant asymmetric advantage.

Controlling the Sea: A Prerequisite to Power Projection

The United States is, and will always be, a maritime nation. Our prosperity – and, indeed, the world's prosperity – hinges on the free use of the seas as highways of commerce. Excluding our cross-border trade with Canada and Mexico, fully 95 percent of U.S. imports and exports are carried by ship. Navy carrier battle groups (CVBGs), amphibious ready groups (ARGs) with their embarked Marine air-ground task forces (MAGTFs), and other naval forces deployed in vital regions around the world are an "insurance policy" for keeping these highways open.

Moreover, through their capacity to control the sea and to project credible and capable force into regions of concern, the Navy's 12 CVBGs and ARGs ensure our use of the sea not only for commerce, but also as a secure base from which U.S. forces can operate and freely maneuver. These forces are central to deterring and, when necessary, defeating an adversary who attempts to deny U.S. access to important overseas regions and forestall U.S. power projection.

In some instances, ARGs, with their embarked Marine Expeditionary Units (Special Operations Capable) [MEU(SOC)s], and supporting surface warships can effectively deal with threats to regional access by themselves. Other scenarios may require a full panoply of naval power – including multi-mission carrier battle groups operating an array of advanced combat aircraft and accompanied by a potent mix of surface combatants, attack submarines, and logistics support ships – to cope with more sophisticated enemy area-denial strategies. With their embarked air wings, carriers provide air superiority en route to, in, and well overland in forward operating areas. At sea, battle group units can hunt down and destroy enemy surface forces, defeat submarine threats, breach minefields, and project power against a wide array of land targets using an inherent combination of responsive fire support assets including long-

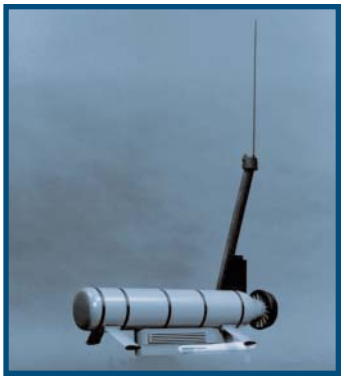
range tactical aircraft and Tomahawk land-attack cruise missiles. During these more extensive combat operations, battle groups can be augmented or supported by the fixed-wing aircraft, helicopters, and ground forces of the MEU(SOC)s embarked on the ships of the ARG. Moreover, other joint forces – including long-range bombers, aerial refueling tankers, and command-and-control aircraft – likely will join U.S. carrier forces in prosecuting these efforts.

Easier to obtain in large numbers, operate, and support than sophisticated combat aircraft, tactical ballistic missiles (TBMs) are becoming the strike weapon of choice for many potential U.S. foes. Of increasing importance to effective joint operations is the CVBG's capability to deploy and establish a theater ballistic missile defense that protects key assets in the build-up phase of a conflict. New upgrades to the Aegis weapon system will provide naval expeditionary forces and joint commanders an effective sea-based missile defense system that is ready upon arrival. U.S. naval forces, already difficult to strike, will have the added ability to detect, track, and destroy missiles launched against them or at key ports and other land-based littoral targets. Offensively, carrier aircraft and surface-launched Tomahawks offer a preemptive means for striking TBM support and storage facilities, as well as missile transporter-erector-launchers before they can be used. The fact that these TBM weapons can be armed with chemical, biological, radiological, or nuclear warheads underscores the value of this deployable missile defense shield.

Operating as part of the battle group or independently, U.S. attack submarines are particularly effective in clearing a battle group's operating area of enemy submarines and surface warships, well before a battle group enters the region. Lurking undetected offshore, these attack submarines can listen while they wait, and collect invaluable intelligence. When required they can launch clandestine special operations forces – SEAL platoons – to gather additional intelligence or to conduct combat raids.

Effective mine countermeasures (MCM) is another critical capability needed to assure access. Mines are an effective, yet relatively inexpensive, means for a technically less-sophisticated adversary to deny America entry to vital littoral regions. Mine warfare represents an area where the asymmetry, today, too often lies in an adversary's favor. Defeating this threat will require a blend of "organic" systems carried onboard battle group combatants supported by "dedicated" minesweeping and mine countermeasure forces, such as Navy mine warfare ships and helicopters. The organic systems will allow battle group ships to identify, avoid, or punch through mined areas without significant operational pauses, while leaving more comprehensive mine clearance operations to follow-on dedicated MCM forces – some already homeported overseas. Research is also continuing on solving the difficult problem of clearing anti-invasion mines in the

surf zone (10 feet to the high water mark). These efforts aim to develop easily deployed and employed unmanned systems to provide rapid clearance of this dangerous zone where land and sea meet.



Together, the naval capabilities described above allow America to control the seas and move expeditionary forces to an objective area. Once there, they can deliver measured combat power to the degree necessary to dominate any adversary. They also possess a forcible-entry capability, being able to "kick in the door" – and hold it open – to accomplish a discrete mission or enable the introduction of a larger Marine, joint or combined force.

Delivering Combat Power: Marine Air-Ground Task Forces

After Navy and Marine Corps forces assure control of regional seas and its surrounding airspace, possibly with the assistance of other joint and coalition forces, the objective becomes projecting decisive combat power ashore. The *QDR Report* calls for forces that can be used "to manage crises, forestall conflict, and conduct combat operations." Continuing, the Report notes:

> *They must be lighter, more lethal and maneuverable, survivable, and more readily deployed and employed in an integrated fashion. They must be not only capable of conducting distributed and dispersed operations, but also able to force entry in anti-access or area-denial environments.*[3]

This vision for transformed joint forces is familiar to members of the Navy-Marine Corps team, as it reflects current competencies of naval expeditionary forces, and in particular, MAGTFs. MAGTFs already "task-organize" their ground, air, and support forces into integrated combat packages, all of which are logistically self-contained and persistent. This organization also is mirrored in Navy battle groups, which are structured to conduct integrated air, sea, and underwater operations without relying upon in-theater land bases. In combat, all of these capabilities, both ashore and afloat, present the enemy with a combined-arms dilemma – how to respond to multi-dimensional forces that have achieved the operational and tactical initiative.

MAGTFs deliver landward combat power from U.S. naval expeditionary ships. They are built on the principle of combined arms – that the whole is greater than the sum of its parts, and that efforts to deal with one individual element of its combat power will likely make an adversary more vulnerable to the effects of other elements. They embody the QDR requirement for forces that are "scalable and task-organized into modular units to allow combatant commanders to draw on the appropriate forces to deter or defeat an adversary" and "highly networked with joint command and control…better able to integrate into combined operations." [4]

The MAGTF: Expeditionary Building Blocks

The Marine Corps will primarily operate as Marine Air-Ground Task Force (MAGTFs) to conduct a broad range of military operations. The MAGTF is an integrated, modular organization with general-purpose air, ground and logistics forces that can be tailored to the requirements of a specific situation.

Each MAGTF has the same basic structure, including a command, ground combat, aviation, and combat service support element – and, depending on the task – can range from a light, air-transportable unit to one that is relatively heavy and mechanized. Its modular structure lends itself to rapid and easy expansion into an increasingly larger force as the situation demands, simply by adding forces to the core elements.

A Marine Expeditionary Unit (Special Operations Capable) is the standard forward-deployed force (approximately 2,200 troops and 15-days sustainment). A Marine Expeditionary Brigade is the minimum sized force required for forcible entry operations (approximately 17,000 troops and 30-days sustainment). The Marine Expeditionary Force is the Marine Corps' principal warfighting force (approximately 50,000 troops and 60-days sustainment).

There are several MAGTF sizes; each can be tailored for a different type and intensity of operations. A forward-deployed MEU(SOC) is the standard task-organized force used for most peacetime presence and smaller-scale, crisis-response missions. These specialized Marine Corps units are the "enablers" for a larger and more capable Marine Expeditionary Brigade (MEB) that can provide a significant forcible-entry capability and can in turn support the introduction of follow-on joint forces, if they are required. Similarly, a brigade can pave the way for the deployment of an even more powerful Marine Expeditionary Force (MEF), which is the Maine Corps' principal warfighting entity for high-intensity theater operations, such as Desert Storm.

All MAGTFs are capable of deploying aboard Navy amphibious assault warships. In addition to embarking the MAGTF's combat and support elements, these platforms also carry the helicopters and amphibious assault vehicles that transport them ashore. They likewise serve as full-service combat bases for the vertical/short take-off and landing (V/STOL) aircraft – both fixed-wing and helicopter – which provide integrated air support for MAGTF operations.

Not all MAGTFs will deploy via amphibious lift, however. Some can also be deployed via strategic airlift, joining up with equipment carried onboard Maritime Prepositioning Force (MPF) ships staged in key locations around the world – Diego Garcia in the Indian Ocean, the Guam-Saipan area of the Pacific, and in the Mediterranean Sea. This arrangement allows for the global, rapid, and substantial reinforcement of MEU(SOC)s or other forward-deployed MAGTFs.

Built upon the twin pillars of maneuver warfare and an expeditionary heritage as old as the nation itself, *Expeditionary Maneuver Warfare* (EMW), is the Marine Corps' capstone concept whose implementation will enhance the already demonstrable flexibility and effectiveness of MAGTF operations. Expeditionary maneuver warfare in the 21st century will emphasize amphibious assaults that begin far over the horizon from an enemy-held coastline and proceed directly to their operational objectives ashore, without stopping to seize and defend a beachhead or landing zone. This concept focuses on projecting combat formations directly against key enemy vulnerabilities, and then re-embarking them or reinforcing them as dictated by the demands of the joint campaign. For the most part, command and control, logistics, and fire support for the combat units ashore will remain at sea. Large, fixed beachheads – lucrative targets for enemy attack – will be things of the past.

Delivering Combat Power: Key Tools

The most effective means of surging the power of a MAGTF is as an entire package, embarked in an amphibious task force, with all its elements operating together as an integrated whole. Likewise, Navy and Marine Corps personnel and assets are fused into a coordinated team, one that is focused on conducting expeditionary maneuver warfare from the sea. However, for conducting 21st-century amphibious warfare, the Navy and Marine Corps must be equipped with the proper "tools."

Amphibious Shipping

The amphibious warships that deliver the Marines of a naval expeditionary force to the objective area are not simply transports; they are indispensable, integral parts of a synergistic

Amphibious Lift: Numbers Are Critical

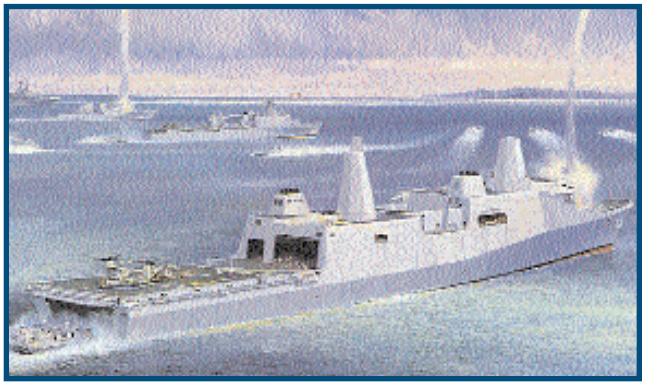
The naval services have determined that the Navy requires 12 ARGs formed around 12 large-deck amphibious assault warships. These ARGs, each of three ships, will support the peacetime deployment of MEU (SOC)s and, when necessary, combine to form a larger task force capable of transporting an amphibious MEF. That combat-assault lift requirement, which comprises the assault echelon of a warfighting Marine Expeditionary Force -- up to two-thirds of the MEF's full combat power – remains the nation's only means for self-sustainable forcible entry into a region in which U.S. forces are being denied access.

Amphibious assault lift is measured by five elements: cubic footage (cargo); square footage (assault vehicles); personnel; landing craft air cushion (LCAC) vehicle spots; and helicopter/vertical takeoff and landing aircraft (VTOL) spots. The established combat-assault lift requirement for the Navy and Marine Corps is 3.0-MEB equivalents. For years, however, sufficient funding for this total lift requirement has not been available. Consequently, the Navy and Marine Corps accepted a "resource-constrained" goal of 2.5 MEBs (36 amphibious ships), and the operational risk that goes with it. Today, however, the Navy's lift capability is only 2.1 MEBs (vehicle-lift capacity) – a result of block obsolescence of 1960s- and 1970s-era amphibious ships and the constrained amphibious shipbuilding program during the last two decades. New shipbuilding programs, particularly the *San Antonio* (LPD-17) program, will ultimately get the Navy and Marines back to the fiscally constrained 2.5-MEB equivalent level, but only after the last ship in the class, LPD-28, is delivered to the fleet.

Reaching the 3.0 MEB-lift requirement will require even more capacity. The missing capability is serious: it represents a MEF's combat reserve – the equivalent of an infantry regiment, an artillery battalion, a company of amphibious assault vehicles, a tank company, a light armored vehicle company, and the organic vehicles and assets that would accompany these units. The absence of these units could frustrate future joint operations such as an expanded global war on terrorism.

combat system. Procuring an adequate number of modern amphibious ships is crucial to the success of future Navy-Marine Corps expeditionary operations. The Navy is charged to provide ample forces with the amphibious lift necessary to meet the ongoing and continuous demands of forward presence and the occasional "surge" demand for crisis response or conflict. A downsized Navy must soon begin to retire aging and obsolescent amphibious warships, which underscores the need for planning now to build fully capable and modern large-deck, multi-purpose amphibious platforms as replacements.

The concepts contained in *Expeditionary Maneuver Warfare*, as well as current forward-presence requirements, call for a new mix of modernized multi-purpose amphibious ships supported by Maritime Prepositioning Force ships – logistics seabases – that are much more than just floating warehouses. In future conflicts, amphibious operations will not employ the 20th century tactics of operating in a close formation and approaching an enemy coastline in lockstep. What has changed is the "gradual shift from the quantitative characteristics of warfare – mass and volume – to a realization that qualitative factors (speed, stealth, precision, and sustainability) have become increasingly important facets of modern warfare." This shift, combined with a philosophy of decentralization and the capability of operation from well over the horizon, is what EMW is about.



Likewise, in peacetime, Amphibious Ready Groups and other amphibious task groups will often be called upon to cover numerous commitments simultaneously, sometimes requiring amphibious ships to operate independently from their assigned ARGs. This is often referred to as "split-ARG" operations, and it drives many of the same amphibious warship requirements as EMW.

The naval services are now developing a force shaped by these new concepts. Amphibious combatant acquisition and upgrade programs are a central part of this transformational effort. Currently, the principal acquisition program is the *San Antonio* (LPD-17) class, the first ship of which will be commissioned in 2005. The 12 LPDs of this class (one for each of the Navy's 12 ARGs) are replacing four classes of less-capable amphibious ships now equipped with 1960's and early 1980's technology. The combat vehicle-lift capacity of the *San Antonio* warships will more than double that of the *Austin* class they will soon replace.

The *San Antonio*-class combatants will provide much-expanded operational flexibility and warfighting effectiveness. They are the first amphibious ships designed from the keel up to accommodate the Navy's new "mobility triad" – the MV-22 Osprey aircraft, the Advanced Amphibious Assault Vehicle (AAAV) and the Landing Craft Air Cushion (LCAC). Although the

LPD-17s will not be equipped as flagships, they will have the leading-edge command-and-control capabilities necessary for launching and coordinating over-the-horizon assaults and subsequent operations inland.

This capability will also enable the LPD-17 to operate, fight, and survive as part of a large amphibious task force, a three-ship ARG, or split from the ARG, operating independently to support lower-risk operations. *San Antonio*-class ships will be well equipped to defend themselves and survive in a combat situation; each will be fitted with capable air- and surface-search radar and weapons engagement systems, the Cooperative Engagement Capability, advanced signature-reduction technologies, and advanced electronic warfare and decoy systems. All will be equipped with an impressive array of enhanced ship survivability features.

Serving alongside the *San Antonio*-class LPDs will be the amphibious assault ships of the *Wasp* (LHD-1) class. The *Wasps* – the first of which entered service in 1989 – provide embarked Navy and Marine Corps commanders with command-and-control capabilities for sea-based maneuver and assault operations, and employ elements of a landing force using helicopters and amphibious vehicles. The LHDs offer a large flight deck for helicopters and V/STOL aircraft operations including the AV-8 Harrier and MV-22 Osprey, and a well deck that accommodates air-cushioned and conventional landing craft. In the future, the short takeoff/vertical landing (STOVL) version of the Joint Strike Fighter (JSF) will also be able to operate from LHD decks, giving these ships a potent air power-projection capability and extended operational reach.

The versatile *Wasp*-class combatants bring immense tactical and operational flexibility to naval expeditionary warfare. As with the LPD-17, they provide additional expeditionary lift and sustainment support, allowing ARGs to be formed around three instead of four or five ships, as had been the case previously. An updated variant of the original *Wasp*-class ships, LHD-8, will feature new technologies designed to increase the ship's operational and cost effectiveness. Beyond LHD-8, the Navy is studying concepts for a new generation of assault landing ships – LHA(R) – to replace the *Tarawa*-class LHA amphibious assault ships, which are approaching the end of their expected service lives. The LHA(R) is also projected to be an eventual replacement for the *Wasp*-class ships.

Tactical Lift

Navy amphibious ships must carry with them the means – tactical lift – to maneuver the MAGTF's combat power ashore and against its objectives. With older technologies, tactical lift primarily meant slow, relatively short-range, and vulnerable craft that had to be launched from their amphibious hosts within visual range of a beach. This is not the case today.

The faster speeds and extended range of the advanced craft in the mobility triad permit amphibious operations to begin well away from an adversary's shore defenses. Providing ARGs with an over-the-horizon capability and greater maneuvering space, this improves the reaction-time cushion needed to defend against supersonic airborne and other land-based threats, while still allowing their embarked MEU(SOC)s to strike far inland. Marines participating in Operation Enduring Freedom recently demonstrated both the capability and requirement to strike far inland as they seized a forward operating base near Kandahar in Afghanistan, more than 400 miles inland from their seabase in the Arabian Sea. This impressive capability will be significantly improved when the triad's MV-22 Osprey reaches the fleet.

But even with these improvements provided by the mobility triad, a requirement continues to exist for a low-end, heavy-lift utility craft (LCU) to support ARG/ MEU(SOC) missions, such as non-combatant evacuation and humanitarian relief operations. The LCU carries a payload more than double that of the faster LCAC and complements the triad of assault craft by providing for follow-on support and sustainment operations. A planned LCU Replacement Craft [LCU(R)] will provide improved lift – 160-225 tons – and speeds grater than the aging LCU it will replace, enhancing support to amphibious forces across the full spectrum of operations.

Supporting Command and Control

As the Marine Corps shifts to fully sea-based maneuver and assault, Navy amphibious ships will require new command-and-control capabilities and systems – a challenge with which the naval services are now grappling. EMW concepts emphasize the use of information to generate knowledge superiority, so that assaulting units can maneuver to avoid enemy strengths and exploit enemy weaknesses well before they come ashore. Likewise, individual units must be able to report their location, status, and other essential information to each other and to appropriate Marine and Navy commanders. Reliable, real-time, shared information – tailored to the needs of individual units, platforms, and command elements – will help naval forces develop a common tactical and operational-level picture and understanding of events in the area of operations. These distributed information flows also will promote decentralized mission execution – in

accordance with a commander's intent – among all units in the MAGTF, ARG, or amphibious task force.

However, all of this demands more than simple voice communications nets that provide the means to pass top-down directions. Instead, Navy and Marine units will require information networks that allow them to rapidly draw upon the data they need to achieve tactical objectives and coordinate their actions with other units. Consequently, all amphibious combatants must be outfitted with advanced command, control, and information-processing systems that contribute to this multi-level exchange of information.

Future expeditionary operations will see amphibious assault ships dispersed over hundreds, and in some cases even thousands, of miles of ocean. Under these circumstances, each amphibious ship must be able to act independently. They must have the means to put their embarked Marines ashore unassisted, support them logistically, *and* be able to communicate and coordinate with them. Likewise, they must be able to "plug into" U.S. theater and global command-and-control networks, independent of other intermediaries. With these capabilities, naval forces will be able to serve as the lead element of a joint force, as a joint enabling force, or as a Joint Task Force (JTF). Naval commanders also will be able to act as functional component commanders under a joint force commander.

Naval Fire Support

Supporting fires from surface warships and naval aircraft are needed throughout all phases of an amphibious campaign. The term "supporting fires" is not merely a synonym for the delivery of precision ordnance on point targets. As B-52 strikes in Afghanistan demonstrated, the psychological impact of volume fires, combined with precision long-range firepower, should not be underestimated. Both are needed to achieve the desired effect of shattering an enemy's will and cohesion in conflict and inducing terror and confusion.

Hence, the Navy is developing a new sea-based artillery capability to meet both the Marine Corps' and the Army's needs for direct-support fire from the sea. The DD(X) – a member of the Navy's next-generation "family of ships" now under development – will support joint expeditionary requirements in littoral regions, providing a versatile array of land-attack weapons, including the Tactical Tomahawk and the Advanced Gun System firing 155mm Long Range Land Attack Projectiles. These systems, coupled with naval attack aircraft and helicopters, will provide all-weather supporting fires for maneuvering ground forces at ranges of up to 1,000 nautical miles away. Delivered with accuracy and timeliness, sea-based fire support will be a key enabler of Marine or joint ground force efforts.

Several of the missile and gun systems that will arm the DD(X) family of ships also will be retrofitted to other Navy surface warships, expanding critical fire-support capabilities throughout the Fleet. In the meantime, the upgraded 5-inch/62-caliber Mk 45 Mod 4 gun system, paired with the EX-171 Extended Range Guided Munitions (ERGM), will be an important interim naval surface fire-support asset. Finally, the introduction of the Naval Fires Control System – which provides surface combatant crews with automated mission planning and fire coordination support – will play a key role in ensuring the effective delivery of integrated fires, while decreasing the risks of fratricide.

The STOVL JSF currently under development will provide assaulting MAGTFs the extended-range "artillery" they need before ground-based supporting arms are ashore and will add to the cumulative combined-arms effect that is needed to overwhelm an adversary. The JSF is a key element of the services' effort to modernize expeditionary offensive air support forces with a stealthy, state-of-the-art, high performance, and multi-role capability that can operate – and maintain our combat edge – in tomorrow's joint or coalition expeditionary environment.

Sustaining Combat Power

Once the combat power of a naval expeditionary force has been delivered ashore, it must be sustained. EMW concepts emphasize that only those combat forces that are needed ashore to achieve the MAGTF's objectives will be sent ashore. For the most part, logistics, command and control, and combat reserves will remain at sea, reducing the MAGTF's landward footprint and denying the enemy potential targets for asymmetric or conventional attack. Seabasing in this manner requires timely information and high-speed tactical lift to deliver tailored logistics support packages directly to forces ashore, in what *Joint Vision 2020* calls "focused logistics."

For smaller-scale assaults or the initial assault in a larger operation, much of the necessary support will come from the same amphibious ships that transported the MAGTF to the objective area. In major operations, however, the Maritime Prepositioning Force (MPF) will come into play. And, as is the case with their amphibious force counterparts, MPF operations must also change to meet new operational realities resulting from EMW.

In large-scale operations, MAGTF sustainment and heavy combat equipment will be supplied by the three strategically stationed, forward-deployed MPF squadrons – currently a total of 15 ships. Marine units and their light equipment can be flown into a theater of operations to "marry up" with the heavier combat systems and logistics support carried by MPF ships. The MPF can selectively reinforce a MEU(SOC) or, through a building-block approach, rapidly deliver to combatant commanders a heavy, mechanized Marine Expeditionary Force in virtually any region of the world. If the mission calls for a larger, more "traditional" amphibious assault, some follow-on echelons, equipment, and supplies will be carried onboard Military Sealift Command-controlled or -chartered strategic sealift/sustainment vessels.

Employment of the current MPF depends on the availability of an airfield through which Marines can pass en route to marrying up with the equipment from the MPF ships. These ships, in turn, generally require a nearby port or a beach (the latter suitable for over-the-shore logistics) for unloading equipment and material. These facilities may not always be available due to political, infrastructure, or threat conditions. More importantly, ports and airfields are large fixed targets that are vulnerable to attack by long-range weapons, disruption by unconventional or special forces, or even capture by conventional ground forces.

Consequently, the Marine Corps has implemented two programs – MPF Enhanced [MPF(E)] and MPF of the Future [MPF(F)] – designed to reduce the MPF's reliance on fixed infrastructures. Under the concept called *MPF 2010 and Beyond*, the Marine Corps and Navy are striving to structure the MPF so that it ultimately:

- Allows the arrival and assembly of MPF-based forces at sea, eliminating the need for air fields and ports
- Facilitates the reinforcement of the assault echelon of an amphibious task force
- Provides sea-based logistics support to forces ashore for an indefinite period
- Permits the in-theater re-embarkation of equipment onboard the MPF ships, preparing it for near-term future use, and repositioning the force to respond to future contingencies

Most significantly, future MPF ships will be designed and equipped so that they can selectively offload equipment and supplies onto LCACs and other assault craft, in sea conditions up to Sea State 3. Moreover, the MPF ships will not have to unload *all* their equipment to support expeditionary operations on land, but can tailor their offload to the size and logistical needs of the MAGTF units going ashore. The MPF force as currently configured is not sufficiently flexible for this kind of fluid operational support.

The MPF(E) program is providing added flexibility and expands the current MPF capabilities by adding a Naval Mobile Construction Battalion, a Naval Fleet Hospital, and an expeditionary airfield to each of the force's prepositioned squadrons. The essential element of the MPF(F) program is its long-range goal to eventually replace the current MPF fleet with

innovative ships specifically designed to support the concepts of expeditionary maneuver warfare and seabased logistics. These ships will be an integral part of a seabase equipped with enhanced capabilities to fulfill the full spectrum of expeditionary operations from rapid combat reinforcement to humanitarian operations – supported at sea and from over the horizon.

The enhancements planned in the *MPF 2010 and Beyond* concept will provide naval expeditionary forces a previously unseen seabasing capability, which supports not only timely delivery and sustainment of a maneuvering force, but also retrograding, reconstituting, and reconfiguring these forces efficiently for their next mission.

Maintaining Our Asymmetrical Edge

Maritime superiority for America is not a luxury, but rather an immutable requirement. Sea power, with its inherent power-projection capability, is the chief guarantor of our survival as a maritime nation. The Navy's capability to protect our sea lines of communication and deliver decisive expeditionary forces remains crucial to national security. Almost any type and level of conflict involving U.S. interests will require the movement of forces by sea. The naval services will continue to hold considerable advantages in tactical air, assault assets, and sustainability at sea thanks to new and more sophisticated ships and craft that will soon be entering the fleet.

Based on the changes in the international security environment, U.S. global military posture will be reoriented to "provide sufficient mobility including airlift, sealift, prepositioning, basing infrastructure, alternative points of debarkation, and new logistical concepts of operations to conduct expeditionary operations in distant theaters against adversaries armed with weapons of mass destruction and other means to deny access to U.S. forces."[5] Accordingly, the QDR directs the Secretary of the Navy to develop new concepts of maritime prepositioning, high-speed sealift and new amphibious capabilities for the Marine Corps.[6]

The *QDR Report* makes clear that naval expeditionary forces will have a key role and enduring value in the nation's broad portfolio of military capabilities for projecting power around the world. They are one of America's notable asymmetric assets: no other nation can control the sea, project and sustain combat power in all its dimensions with the breadth and depth of the United States naval forces. But even solid assets need continuing wise investment to promote sound growth and meet future

needs. To maintain this vital national asset well into the uncertain future, the naval services will continue transforming themselves through innovative concepts and innovative technology, thereby remaining ready, relevant, and capable. We will maintain our asymmetric edge.

Notes:

1 – QDR, p. 30.

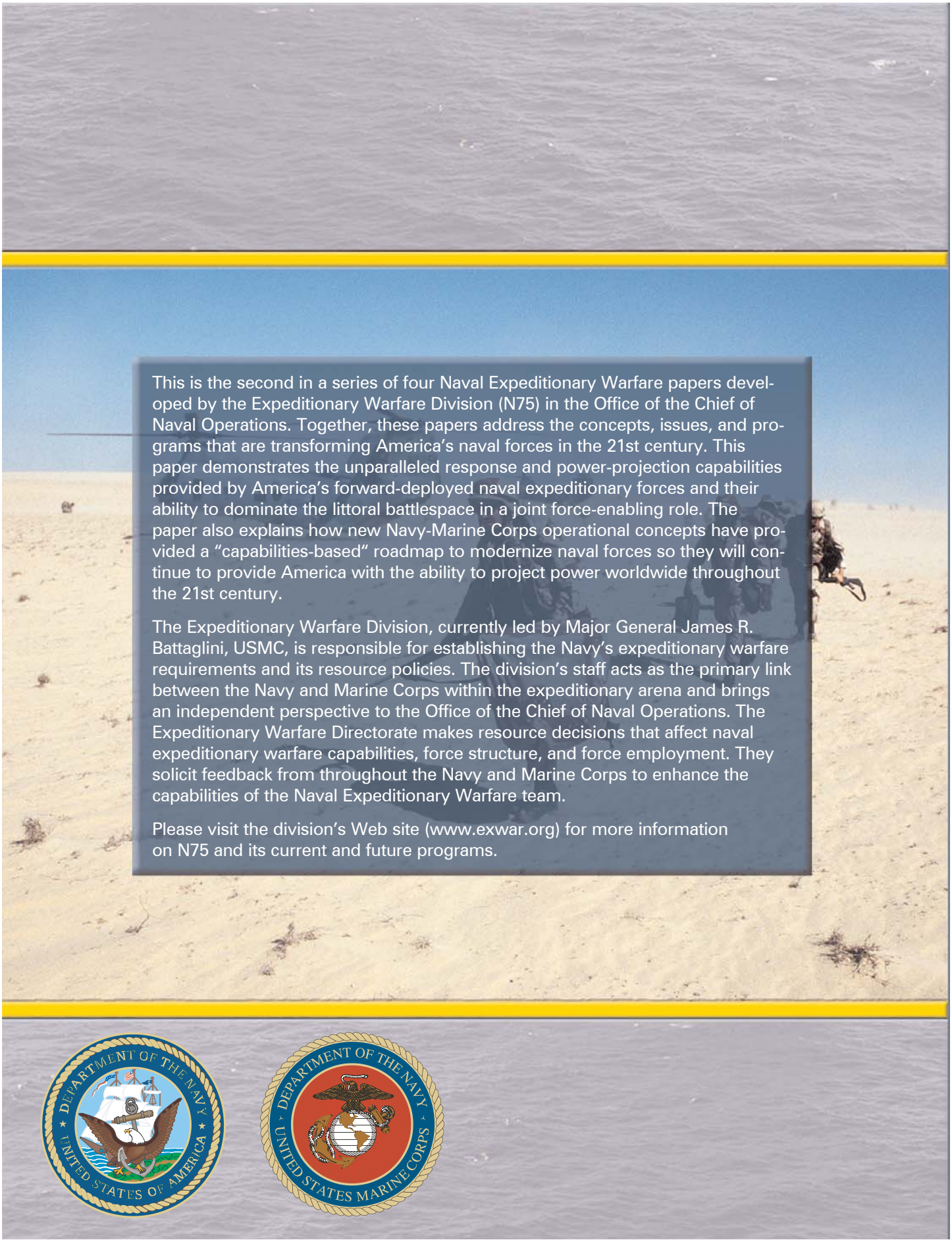
2 – QDR, p. 43.

3 – QDR, p. 32.

4 – QDR, p. 32.

5 – QDR, p. 26.

6 – QDR, p. 27.



This is the second in a series of four Naval Expeditionary Warfare papers developed by the Expeditionary Warfare Division (N75) in the Office of the Chief of Naval Operations. Together, these papers address the concepts, issues, and programs that are transforming America's naval forces in the 21st century. This paper demonstrates the unparalleled response and power-projection capabilities provided by America's forward-deployed naval expeditionary forces and their ability to dominate the littoral battlespace in a joint force-enabling role. The paper also explains how new Navy-Marine Corps operational concepts have provided a "capabilities-based" roadmap to modernize naval forces so they will continue to provide America with the ability to project power worldwide throughout the 21st century.

The Expeditionary Warfare Division, currently led by Major General James R. Battaglini, USMC, is responsible for establishing the Navy's expeditionary warfare requirements and its resource policies. The division's staff acts as the primary link between the Navy and Marine Corps within the expeditionary arena and brings an independent perspective to the Office of the Chief of Naval Operations. The Expeditionary Warfare Directorate makes resource decisions that affect naval expeditionary warfare capabilities, force structure, and force employment. They solicit feedback from throughout the Navy and Marine Corps to enhance the capabilities of the Naval Expeditionary Warfare team.

Please visit the division's Web site (www.exwar.org) for more information on N75 and its current and future programs.